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ILLEGIB

(U) EAST-WEST TRADE: THE MACROECONOMIC
IMPACT OF LARGE TRADE CUTS

BUREAU OF
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Summary

To get some feel for the amount of reduction in Western manufactured exports that would be required to produce a significant macroeconomic impact on the Soviet Union, we ran simulations using the LINK system of econometric models.^{1/} The simulations cannot adequately address the dynamic effects of trade limitations on high-technology items that the Soviets would find difficult to replace. The results nevertheless provide interesting information on the relative costs of trade cuts to Western countries and the Soviet Union.

Simulations of hypothetical cuts in 1982 and 1983 Western manufactured exports to the Soviet Union alone, or to all the European CEMA members,^{2/} indicate that over a two-year period costs to Western economies might be larger than costs to the Soviet economy. This need not mean that over a period of more than two years the cost to the Soviet Union would not be greater. It does, however, suggest caution in expecting significant, immediately visible damage to the Soviet economy from trade reductions.

^{1/} The LINK system, University of Pennsylvania, contains individual country models of 18 Western countries (see table 1), the European CEMA members (see footnote 2), and China. Regional models of Asia, Africa, Latin America, and the Middle East are also part of the system.

^{2/} European members of the Council for Mutual Economic Assistance are Albania (has not participated since 1961), Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland, Romania, and USSR.

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Introduction

The uncertainties and frictions in Western political relations with the Soviet Union have important effects on US-Soviet trade and on East-West trade in general. The fundamental basis for voluntary trade is mutual economic gain. The gains from trade, however, do not accrue equally to all participants. A common perception is that existing East-West trade is of greater benefit to the East, or at least that a sharp cut in trade would be more costly to the East. This contributes to debate over whether the additional trade benefit to the East provides the West with useful "leverage" relative to East-West political issues. Conversely, increased Western purchases of energy from the Soviet Union might make the West more vulnerable to sharp Soviet trade cuts. This raises concern about providing political leverage to the Soviet Union.

At least implicit in the above analysis is the assumption that a sudden, large trade cut is a usable political instrument. The partial grain embargo by the US is one example of a politically motivated shift in export policy. Similarly, following imposition of martial law in Poland, the West imposed new restrictions on trade with Poland and the Soviet Union. Major export reductions, however, have not been imposed. Indeed, it is uncertain what circumstances might make a major, coordinated reduction in Western exports to the USSR or CEMA a plausible option.

One important reason for Western reluctance to cap or reduce exports to the East is economic: whereas increased trade might benefit the West as well as the East, a cut in trade would impose mutual economic losses. Differences in the costs of trade cuts among Western economies, and the current slump in economic conditions, would make new economic burdens difficult to accept. The magnitude of the 1982 and 1983 macroeconomic costs that would be incurred under different export reduction scenarios is estimated below by comparing the alternative scenarios to a "Baseline" case, which is a forecast of economic conditions assuming no shocks to East-West trade. Some results are reported for East European CEMA countries collectively, but the primary focus of the analysis is

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the macroeconomic impact on Western economies and the Soviet Union.^{5/}

The Scenarios

Relative to the Baseline, the three alternative trade scenarios assume:

- a 50-percent decrease in the value of Western manufactured goods exports (Standard International Trade Classification categories 5-9) to the USSR;
- a 100-percent decrease in the value of Western manufactured goods exports to the USSR;
- a 50-percent decrease in the value of Western manufactured goods exports to CEMA.

The three scenarios assume equal percentage export reductions to the USSR or CEMA for all of the Western countries in the LINK system, except as noted in table 1 (appended). The direct and indirect effects of cuts in Western manufactured exports to the Soviet Union are summarized below. The simulations assume that alternative sources of supply are not readily available and that transshipment--additional purchases from the West by other countries, which are then forwarded to the Soviet Union--is prevented. No adjustment is made for possible economic responses by the Soviet Union except for cessation of Soviet gold sales. Because the cuts in Western exports would substantially reduce the hard-currency needs of the Soviet Union, Soviet energy exports to the West also might be curtailed. The quantities of energy involved could be obtained elsewhere, but not without some disruption, additional cost, and probably a greater degree of dependence on the Organization of Petroleum Exporting Countries (OPEC). Thus, the estimates presented may understate the full two-year economic costs to the West of such export reductions.

^{5/} Because of the macrostructure of the models, the impact on specific industries in the East or West is not addressed, and the cuts are imposed on the entire manufactured goods sector. Restrictions on high-technology items would apply only to a narrower set of items. If, however, the desire is to limit all Western goods going to defense priority industries, the broader category might be appropriate. Also, looking only at total trade in high-technology items might understate the economic effects of cuts because of secondary effects and because such goods might be a necessary component of larger trade agreements.

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Results of a 50-percent reduction in manufactured exports to the USSR. The 50-percent reduction in manufactured goods exports to the USSR has a negative impact on Western economies, particularly in continental Europe (table 1). Relative to Baseline, the FRG loses 1.0 percent of GDP in 1982. The resulting 1982 real GDP growth rate is only 0.3 of a percent, and an additional 200,000 persons are unemployed. The situation improves somewhat in 1982, with the FRG economy assisted by a degree of economic recovery in the Organization for Economic Cooperation and Development (OECD) generally and relative success in efforts to sell the affected goods in other markets. Efforts by Western producers generally to sell in other markets goods previously exported to the Soviet Union could increase competition, but it might also strengthen protectionist pressures, as each country attempted to offset the impact of trade cuts by expanding exports as well as domestic sales.

A number of the smaller European economies are also hit by the export cuts. Indirect effects of slower growth in the FRG and other large trading partners, in addition to the direct reduction in exports to the USSR, lower 1982 and 1983 real GDP significantly below Baseline forecasts in Belgium, Denmark, the Netherlands, and Switzerland. The impact on most of the other European countries modeled is moderate. Growth rates in the US, Canadian, and Australian economies are virtually unaffected by the export reduction; however, their levels of real GDP are reduced slightly relative to Baseline. For the US, the loss is just over \$1 billion each year, in 1981 prices.

The overall impact of the trade cut on Western economies is moderate; but, as the results show, the effects vary considerably among countries. The percentage of the large Western economies' manufactured exports sent to the Soviet Union is a fairly good indicator of the relative economic impact of the trade cut on them. It is less reliable for the smaller COCOM economies because of differences in the indirect effects from slower growth in major trading partner economies.

The effect of the export cuts on inflation in Western economies is negligible. The largest change is a decline of 0.4 of a percentage point in the 1983 Swedish inflation rate. The 1983 inflation rates in the Netherlands and the FRG are reduced by 0.2 of a percentage point.

The effect on Soviet production of a 50-percent cut in imports from the West is a reduction of 0.2 of a percent from Baseline real GDP in 1982 and 1983. The reduction in imports reduces Soviet investment and consumption, slowing Soviet growth. Because the drop in Soviet imports from the West is not offset by higher imports from other areas, overall Soviet imports decline, relative to Baseline, by about \$9 billion in 1982 and \$10 billion in 1983.

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A shift of similar magnitude occurs in the Soviet trade balance, making it feasible for the Soviets to reduce their exports to the West, accelerate payment of debts to the West (estimated at about \$18 billion at the end of 1981), or otherwise adjust to the reduction in imports.

Results of a cutoff in manufactured exports to the USSR. The 100-percent cut in Western manufactured exports to the Soviet Union increases the damage to both Soviet and Western economies. Real GDP is at least 1.0 percent below Baseline in Belgium, the Netherlands, and Switzerland in 1982; and in Belgium, Denmark, and Italy in 1983. In aggregate terms, real GDP for the OECD countries modeled is 0.4 of a percent below Baseline in 1982 and 0.3 of a percent below Baseline in 1983.

Soviet real GDP is 0.4 of a percent below Baseline in 1982 and 0.7 of a percent below Baseline in 1983. In this scenario, the impact on Soviet production increases from 1982 to 1983 while the impact on a majority of Western economies is either equal to or less than that for 1982, and the impact on the OECD as a whole declines relative to 1982. Over an extended period, however, substitute sources of manufactured imports and other adjustments might mitigate the impact on Soviet production.

While the impact on real GDP in most Western economies is substantially increased by the larger export reduction, the impact on inflation rates remains relatively small. Sweden has the largest change, a drop of 0.7 of a percentage point from the 1983 Baseline rate. In aggregate terms, the 1983 GDP deflator for the OECD countries modeled is only 0.1 of a percentage point below Baseline (table 2).

The export cuts also have a minor impact on aggregate world trade. The world export price index is unchanged and the real value of trade (in 1970 dollars) is reduced by about \$5 billion per year in the 50-percent case and \$10 billion per year in the 100-percent case.

Results of a 50-percent reduction in manufactured exports to European CEMA countries. Even apart from concerns over transshipment, a reduction in exports might be applied to the other European CEMA members as well as the Soviet Union. A 50-percent cut in Western manufactured exports to CEMA countries has almost as great an impact on Western economies as a total cutoff in Western manufactured exports to the Soviet Union. Real GDP in 1982 is at least 0.8 of a percent below the Baseline forecast in the FRG, Belgium, Denmark, Switzerland, the Netherlands, and Italy. Approximately the same differences obtain in 1983, except for some recovery in the FRG. As a percentage of real GDP, the export reduction has almost no impact on the US, Canadian, or Australian economies;

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however, the absolute cost to the US, expressed in 1981 prices, is around \$2 billion per year. Real GDP in the other OECD countries that reduce their exports to CEMA is 0.3 of a percent or more below Baseline in 1982 and 0.4 of a percent or more below Baseline in 1983.

The effects of the cut on the Soviet economy are essentially the same as when the 50-percent reduction is applied only to the Soviet Union. Extending the 50-percent cut to CEMA reduces Soviet trade a bit more, but the indirect, "multiplier" effects, which are important in Western economies when real growth slows, are minimal. This may reflect the fixed term, "barter" approach to intra-CEMA trade. Not fully reflected in the results is a probable increase in intra-CEMA trade induced by reduced availability of Western manufactured goods. Such an increase in intra-CEMA trade might offset at least a small part of the loss in Soviet production and in East European production. The loss in East European production amounts to nearly 0.9 of a percent per year relative to Baseline.^{6/}

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^{6/} The estimate is very rough because of somewhat arbitrary exchange rates, lack of information for Romania, and Polish economic conditions.

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Table 1. The Effects of Export Shifts on Real GDP
(percentage difference from baseline level)

<u>Country</u>	<u>1982</u>			<u>1983</u>		
	<u>50% USSR</u>	<u>100% USSR</u>	<u>50% CEMA</u>	<u>50% USSR</u>	<u>100% USSR</u>	<u>50% CEMA</u>
Australia	0.0	-0.1	-0.1	0.0	-0.1	-0.1
Austria*	-0.1	-0.2	-0.2	-0.1	-0.3	-0.2
Belgium	-0.7	-1.2	-1.2	-0.5	-1.1	-1.0
Canada	-0.1	-0.1	-0.1	-0.0	-0.1	-0.1
Denmark	-0.5	-0.9	-0.9	-0.6	-1.2	-1.2
Finland*	-0.3	-0.4	-0.4	-0.3	-0.5	-0.5
France	-0.3	-0.6	-0.5	-0.3	-0.5	-0.5
FRG	-1.0	-1.9	-1.8	-0.2	-0.5	-0.4
Greece	-0.1	-0.3	-0.3	-0.2	-0.3	-0.3
Italy	-0.4	-0.8	-0.8	-0.5	-1.0	-1.0
Japan	-0.2	-0.5	-0.5	-0.3	-0.6	-0.5
Netherlands	-0.5	-1.0	-0.9	-0.4	-0.9	-0.8
Norway	-0.3	-0.6	-0.5	-0.2	-0.4	-0.4
Spain	-0.2	-0.4	-0.4	-0.2	-0.4	-0.4
Sweden	-0.3	-0.6	-0.6	-0.3	-0.6	-0.6
Switzerland	-0.5	-1.0	-0.9	-0.4	-0.9	-0.9
UK	-0.1	-0.3	-0.3	-0.3	-0.4	-0.4
US	0.0	-0.1	-0.1	0.0	-0.1	-0.1
USSR	-0.2	-0.4	-0.2	-0.2	-0.7	-0.2

* No export shift was assumed for these countries. Nevertheless, their trade and GDP may be affected because of changes in the demand for their exports by other trading partners and changes in the volume of world trade.

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The cost to COCOM countries^{3/} of a 50-percent cut in their manufactured exports to the Soviet Union, in terms of real gross domestic product (GDP) forgone (1981 prices), is 0.2 of a percent of real GDP per year, or about \$30 billion over the 1982-83 period.^{4/} Applying the 50-percent cut to all European CEMA members, or eliminating all manufactured exports to the Soviet Union, roughly doubles the collective cost to COCOM countries. The costs vary among COCOM economies. In terms of the percentage of GDP forgone, the cost to the US is small relative to most West European economies, especially that of the FRG.

The 50-percent cut lowers projected Soviet real GDP (1981 prices, official exchange rate) by about 0.2 of a percent each year, or around \$4.5 billion over two years. A total cutoff reduces projected Soviet real GDP by about 0.4 of a percent in 1982 and 0.7 of a percent in 1983, or around \$12.5 billion over two years. [It is worth noting that, in the cutoff scenario, the impact on the Soviet economy increases in the second year while the impact on COCOM economies collectively declines.] Applying the 50-percent cut to all European CEMA countries has little additional impact on the Soviet economy.

The cost to the Soviet economy may be somewhat understated because of difficulty in measuring possible "bottleneck" effects caused by reduced access to high-technology products. The results also could be altered by other factors. For example:

- If the cuts applied only to the Soviet Union, other European CEMA members could increase their purchases from the West and reexport goods to the Soviet Union. Applying the cuts to all CEMA members would increase the cost to Western economies and might stimulate increased intra-CEMA trade, offsetting a small part of the impact of the cuts in Western exports.
- All of the export reduction scenarios face the problem of other suppliers. Over time, the newly industrializing countries might be able to offset much of the reduction in Western exports.
- Western export cuts would reduce the hard-currency earnings needed by the Soviet Union, perhaps inviting a reduction in Soviet energy exports. Such a reduction would increase costs to the West and expand the energy available for Soviet domestic use.

* * * * *

^{3/} Coordinating Committee for East-West Trade Policy members are Australia, Belgium, Canada, Denmark, France, Federal Republic of Germany, Greece, Italy, Japan, Netherlands, Norway, Spain, UK, US, and USSR.

^{4/} Sweden and Switzerland are not COCOM members, but are sympathetic to controls on strategic exports. The overall effects, however, would not be greatly changed by their exclusion from the export reductions.

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Table 2. The Impact of Export Reductions on World Economic Conditions
(\$billions)

	1982				1983			
	Base	50% USSR	100% USSR	50% CEMA	Base	50% USSR	100% USSR	50% CEMA
World Exports	2,299.8	2,281.5	2,264.7	2,266.1	2,633.4	2,614.6	2,595.4	2,596.5
World Export Price Index (1970=1)	3.8	3.8	3.8	3.8	4.1	4.1	4.1	4.1
World Exports (real)	612.2	607.2	602.6	603.0	636.3	631.5	626.4	627.1
OECD (18 LINK countries)								
Exports	1,360.7	1,345.7	1,331.5	1,332.4	1,550.6	1,536.9	1,520.6	1,521.5
Imports	1,412.0	1,404.6	1,398.4	1,398.8	1,604.9	1,598.1	1,590.9	1,591.0
Balance	-51.3	-58.9	-66.8	-66.4	-54.3	-61.2	-70.3	-69.4
Real GDP (1970 prices)	2,904.1	2,898.3	2,892.6	2,892.9	3,004.3	3,000.2	2,995.4	2,995.7
GDP deflator	8.8	8.8	8.8	8.8	8.3	8.2	8.2	8.2
Centrally Planned Economies (CEMA plus China)*								
Exports	200.3	199.4	198.6	199.0	225.1	224.1	223.3	223.7
Imports	201.7	192.3	182.9	183.8	226.4	215.5	204.8	206.0
Balance	-1.4	7.1	15.7	15.2	-1.3	8.6	18.5	17.7
Real GDP (% change)	3.9	3.8	3.7	3.7	4.2	4.2	4.0	4.1

* Not available separately. Inclusion of China should not affect the comparisons.